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EXAMINER

DELGADO, MICHAEL A

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,334

Applicant(s)

OKITA ET AL.

Examiner

Michael S. A. Delgado

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/07/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 3 and 4 are objected to because of the following informalities: They are the same. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-38 and 41-49 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,829,770 by Hinson et al, US 6,442,620 by Thatte et al and US 6,748,555 by Teegan et al. (See Teegan Col 13, lines 15-20, Col 13, lines 45-55).

In claim 1, Hinson , Thatte and Teegan combined, teaches about a method of adding an event source to a transaction processing system having a workflow server engine comprising the steps of (Teegan Fig. 8) :

defining the event in a workflow database (Teegan Col, 17, line 65-Col 18, line 5) ;

creating one or more executable functions “user-created metrics” which creates a data structure (COM structure) for events coming from the event source (Teegan Col, 8, lines 5-35) (Teegan Col, 17, lines 35-45) (Teegan Col, 18, lines 1-10); and

creating a workflow “set of rules” to be executed on the workflow server engine “software manager 810” in response to an event from the event source (Teegan Fig. 14, 810) (Teegan Col, 16, lines 50-55) (Teegan Col, 26, lines 1-10).

In claim 2, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein the event definition includes an event id “activity identification” (Teegan Col, 14, line 65-Col 17, line 10).

In claim 3, Hinson , Thatte and Teegan combined, teaches about a method of claim 2, wherein the created workflow is associated with the event id so that the created workflow is executed in response to any event having the event id (Teegan Col, 15, lines 1-10).

In claim 4, Hinson , Thatte and Teegan combined, teaches about a method of claim 2, wherein the created workflow is associated with the event id so that the created workflow is executed in response to any event having the event id (Teegan Col, 15, lines 1-10).

In claim 5, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein the event definition includes a list of parameters associated with the event (Teegan Col, 10, lines 1-10).

Art Unit: 2144

In claim 6, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein the one or more executable functions is comprised of a dynamic link library (Teegan Col, 9, lines 1-10).

In claim 7, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein the executable functions are designed to send an event to the workflow server engine (Teegan Col, 16, lines 50-55).

In claim 8, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein the event source is added without changing the workflow server engine (Teegan Col, 10, lines 20-40) (Teegan Col, 3, lines 25-40) (Thatte Col, 13, lines 40-60). (The wrapper function as a go-between between client and workflow server engine and thus compensate for any change that take place from the client's end. This supports the feature that is being claimed).

In claim 9, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, further comprising the step of creating one or more rules for associating an event from the added event source with the workflow (Teegan Col, 26, lines 1-15).

In claim 10, Hinson , Thatte and Teegan combined, teaches about a method of claim 9 wherein the rule includes a logic expression (Teegan Col, 3, lines 25-40).

Art Unit: 2144

In claim 11, Hinson , Thatte and Teegan combined, teaches about a method of claim 9, wherein the event definition includes one or more parameters, and wherein the created rules includes the use of the parameters (Teegan Col, 3, line 60-Col 4, line 5) (Teegan Col, 10, lines 1-10).

In claim 12, Hinson , Thatte and Teegan combined, teaches about a method of claim 1, wherein a plurality of events are defined in the workflow database, the method further comprising the step of categorizing the events into a plurality of event types (Teegan Col, 30, lines 20-35).

In claim 13, Hinson , Thatte and Teegan combined, teaches about a method of claim 12, wherein each of the workflow server engine handles each of the event types in different ways (Teegan Fig. 14) (Teegan Col, 16, line 50-Col 17, line 5).

In claim 14, Hinson , Thatte and Teegan combined, teaches about a method of adding a new subsystem “user defined event ” to a workflow server engine “software manager” having a plurality of subsystems “event sources” for providing events to the workflow server engine, the method comprising the steps of (Teegan Col, 16, lines 50-67) (Teegan Col, 17, line 65-Col 18, line 5) (Teegan Fig. 14):

defining an event, which will be generated by the new subsystem (Teegan Col, 17, line 65-Col 18, line 5);

Art Unit: 2144

creating a dynamic link library for creating a data structure for the defined event (Teegan Col, 8, lines 25-35); and

associating the defined event with a workflow “set of rules” so that the associated workflow is executed (action that create alert) on the workflow server engine in response to an event from the new subsystem (Teegan Col, 17, line 65-Col 18, line 5) (Teegan Col, 26, lines 1-10).

In claim 15, Hinson , Thatte and Teegan combined, teaches about a method of claim 14, wherein the dynamic link library creates a data structure for the defined event (Teegan Col, 8, lines 5-35).

In claim 16, Hinson , Thatte and Teegan combined, teaches about a method of claim 14, wherein the step of defining the event further comprises the step of assigning an event id to the event (Teegan Col, 15, lines 1-10).

In claim 17, Hinson , Thatte and Teegan combined, teaches about a method of claim 14, wherein the step of defining the event further comprises the step of associating a plurality of parameters to the event (Teegan Col, 10, lines 1-10).

Art Unit: 2144

In claim 18, Hinson , Thatte and Teegan combined, teaches about a method of claim 17, wherein the plurality of subsystems also have a plurality of associated events (Teegan Col, 16, line 50-Col 17, line 5) .

In claim 19, Hinson , Thatte and Teegan combined, teaches about a method of claim 18 further comprising the step of exchanging events between different subsystems “event generated from lower levels or higher level software manager” during the execution of the workflow (Teegan Col, 16, line 50-Col 17, line 5) (Teegan Fig. 14).

In claim 20, Hinson , Thatte and Teegan combined, teaches about a apparatus for executing a transaction task within a transaction processing system comprising (Teegan Fig. 14):

a plurality of event providers for providing a source of events “event sources 832” to the transaction processing system (Teegan Col, 16, line 50-Col 17, line 5);

a database “publisher 512” for storing information relating to the events provided by the event providers (Teegan Col, 14, lines 17-20);

a workflow server engine “software manager 810” for executing workflows “set of rules” in response to events from the plurality of event providers “event sources” (Teegan Col, 16, line 50-Col 17, line 5) (Teegan Col, 26, lines 1-10); and

a workflow editor for creating and editing workflows to be executed on the workflow server engine (Teegan Col, 17, line 65-Col 18, line 5). (This feature has to be present to be able to create a user define event by a subscriber)

Art Unit: 2144

In claim 21, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 20, further comprising:

a new event provider (Teegan Col, 16, line 50-Col 17, line 5) (Teegan Col, 17, line 65-Col 18, line 5); (Any user defined event from any of the other level)

a dynamic link library associated with the new event provider for allowing the new event provider to provide events to the workflow server engine (Hinson Col, 13, lines 25-40) (Teegan Col, 8, lines 25-35) (Teegan Col, 13, lines 44-53).

In claim 22, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 21, wherein the dynamic link library allows the new event provider to provide events to the workflow server engine without changing the workflow server engine (Teegan Col, 10, lines 20-40) (Teegan Col, 3, lines 25-40) (Thatte Col, 13, lines 40-60) (Hinson Col, 13, lines 25-40). (The wrapper function as a go-between between client and workflow server engine and thus compensate for any change that take place as a result of the client's subscription. This supports the feature that is being claimed).

In claim 23, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 20, wherein the transaction processing system collects step execution information (Teegan Col, 3, lines 50-60). (This is a trace program use to identify faults)

In claim 24, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 20, wherein the collected information includes information relating to the number of times a

Art Unit: 2144

branch (any defined event like a transaction) was executed by the workflow server engine (Teegan Col, 11, lines 5-20).

In claim 25, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 20, wherein the collected information includes information relating to the step execution time “average response time for customer orders” for one or more steps executed by the workflow server engine (Teegan Col, 11, lines 5-20).

In claim 26, Hinson , Thatte and Teegan combined, teaches about a workflow execution system comprising:

a workflow server engine “ software manager” (Teegan Col, 16, lines 15-35);

a database server (configuration storage that is connected to configuration interface)

(Teegan Col, 16, lines 15-35);

a plurality of subsystems for providing events to the workflow server engine (Teegan Fig. 14, 832); and

wherein components of the workflow server engine are standards-based components “COM” (Teegan Col, 8, lines 25-35).

In claim 27, Hinson , Thatte and Teegan combined, teaches about a system of claim 26, wherein the components are comprised of ActiveX controls “DCOM” (Teegan Col, 5, lines 35-45).

Art Unit: 2144

In claim 28, Hinson , Thatte and Teegan combined, teaches about a method of executing one or more workflows in a transaction processing system comprising the steps of defining a plurality of events (Teegan Col, 17, line 58-Col 18, line 5);

categorizing the plurality of events in to different types of events (Teegan Col, 30, lines 20-35); and

executing one of the workflows in response to one or more events, wherein different types of events are handled differently (different combination of metrics to generate result) (Teegan Col, 17, line 58-Col 18, line 5).

In claim 29, Hinson , Thatte and Teegan combined, teaches about a method of claim 28, wherein the different types of events includes synchronous events in which the workflow waits for a response from a synchronous event before continuing (Teegan Col, 17, lines 5-15). The process of authentication requires the workflow waiting until the user entering a response after which the step of notification is executed.

In claim 30, Hinson , Thatte and Teegan combined, teaches about a method of claim 28, wherein the different types of events includes asynchronous events in which a workflow being executed continues while waiting for a response to a synchronous event (Teegan Col, 16, lines 30-40).

In claim 31, Hinson , Thatte and Teegan combined, teaches about a method of claim 28, wherein the different types of events includes unsolicited events in which the workflow

Art Unit: 2144

passes an unsolicited event to any workflows being executed (Teegan Col, 16, line 50-Col 17, line 5).

In claim 32, Hinson , Thatte and Teegan combined, teaches about a method of adding a new service to a transaction processing system having a workflow server engine comprising the steps of (Teegan Fig. 12):

creating a configuration for the service in a database (Teegan Col, 16, lines 25-30) (Teegan Col, 17, line 65-Col 18, line 5);

creating one or more executable functions which creates a data structure for communications coming from the service (Teegan Col, 8, lines 25-35) (Teegan Col, 17, line 65-Col 18, line 5); and

creating a workflow to be executed on the workflow server engine including communications with the service (Teegan Col, 26, lines 1-10).

In claim 33, Hinson , Thatte and Teegan combined, teaches about a method of claim 32, wherein the service is an external database access service (Teegan Col, 15, lines 1-10).

In claim 34, Hinson , Thatte and Teegan combined, teaches about a method of claim 32, wherein the service is a telephony service (Teegan Col, 26, lines 15-25).

Art Unit: 2144

In claim 35, Hinson , Thatte and Teegan combined, teaches about a method of claim 32, wherein the service is an email service (Teegan Col, 26, lines 10-15).

In claim 36, Hinson , Thatte and Teegan combined, teaches about a workflow execution system comprising (Teegan Fig. 12):

a centralized database server (Teegan Col, 16, lines 25-30); and

a plurality of workflow server engines connected to the centralized database server, wherein the database server provides information to the workflow server engines for executing workflows (Teegan Col, 16, lines 20-30).

In claim 37, Hinson , Thatte and Teegan combined, teaches about a method of claim 36, wherein the centralized database server stores workflows to be executed by the workflow server engines (Teegan Col, 16, lines 20-30).

In claim 38, Hinson , Thatte and Teegan combined, teaches about a method of claim 36, wherein the centralized database server stores rule sets for use by the workflow server engines (Teegan Col, 16, lines 20-30) (Teegan Col, 26, lines 1-10).

In claim 41, Hinson , Thatte and Teegan combined, teaches about a apparatus of claim 20, wherein the database stores a plurality of workflows and a plurality of rules, and wherein the workflow server engine can selectively load one or more of the workflows and rules (Teegan Col, 16, lines 20-30) (Teegan Col, 14, lines 45-55).

Art Unit: 2144

In claim 42, Hinson , Thatte and Teegan combined, teaches about a method of executing workflows in a transaction processing system comprising the steps of:

providing a database (Teegan Col, 16, lines 20-30);

providing a workflow server engine (Teegan Col, 16, lines 20-30);

storing a plurality of workflow configurations on the database (Teegan Col, 16, lines 20-30); and

selectively loading one or more of the workflow configurations into the workflow server engine (Teegan Col, 14, lines 45-55).

In claim 43, Hinson , Thatte and Teegan combined, teaches about a method of claim 42 further comprising the step of selectively unloading previously loaded workflow configurations (Hinson Col, 13, lines 20-25).

In claim 44, Hinson , Thatte and Teegan combined, teaches about a method of claim 42 wherein the workflow configurations each include one or more executable workflows (Teegan Col, 26, lines 1-10).

Art Unit: 2144

In claim 45, Hinson , Thatte and Teegan combined, teaches about a method of claim 42 wherein the workflow configurations each include one or more rule sets used for selecting workflows based on events (Teegan Col, 26, lines 1-10).

In claim 46, Hinson , Thatte and Teegan combined, teaches about a method of handling exceptions while executing workflows in a transaction processing system comprising the steps of (Teegan Col, 14, lines 40-55):

declaring one or more exception handlers "method exception" (Teegan Col, 14, lines 40-50);

during execution of a workflow, checking for the occurrence of an exception (Teegan Col, 14, lines 40-50); and

if an exception has occurred, handling the exception according to the declaration (Teegan Col, 18, lines 5-15).

In claim 47, Hinson , Thatte and Teegan combined, teaches about a method of claim 46, wherein the exception handler is declared in a workflow step (Teegan Col, 26, lines 10-15).

In claim 48, Hinson , Thatte and Teegan combined, teaches about a method of claim 46, wherein declaration instructs the workflow to ignore the exception (Teegan Col, 16, line 65-Col 17, line 5).

Art Unit: 2144

In claim 49, Hinson , Thatte and Teegan combined, teaches about a method of claim 32, wherein the service is Web server request service (Teegan Col, 26, lines 15-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 39 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,829,770 by Hinson et al, US 6,442,620 by Thatte et al and US 6,748,555 by Teegan et al in view of US 5,999,911 by Berg et al.

In claim 39, Hinson , Thatte and Teegan combined, teaches all the limitation but does not explicitly teach about a locking mechanism. In a shared database that is accessed and modified by multiple users, it is important to prevent the database from being corrupted. A locking mechanism has to be in place to avoid multiple users writing to one particular file at the same time. The locking mechanism approach is well known and was taught by Berg (Col, 7, line 65-Col 8, line 10).

It would have been obvious at the time of the invention for some of ordinary skill to use a locking mechanism in order to prevent file corruption.

A locking mechanism allows only one user to edit a file at anytime. This makes the job of tracking file changes less complicate and prevent file corruption.

In claim 40, the method of claim 39, wherein the locking mechanism prevents access to components of the database server while the components are being modified (covered in claim 39).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,279,009 by Smirnov et al, teaches about a dynamic creation of workflows from deterministic models of real world processes.

US 6,028,997 by Leymann et al, teaches about a method of generating an implementation of reusable parts from containers of a workflow process-model.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is (571) 272-3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM A CUCHLINSKI JR can be reached on (571) 272-3925

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2144

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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